

METHOD OF MANUFACTURING A SEMICONDUCTOR DEVICE

ABSTRACT OF THE DISCLOSURE

5 In a method of manufacturing a semiconductor device, a tungsten layer pattern having
an oxidized surface is formed on a substrate. A source gas including silicon is provided to
the oxidized surface of the tungsten layer pattern to form a protecting layer on the oxidized
surface of the tungsten layer pattern. The protecting layer prevents an abnormal growth of
oxide contained in the oxidized surface. The protecting layer prevents a whisker from
10 growing from the oxidized surface of the tungsten layer pattern.